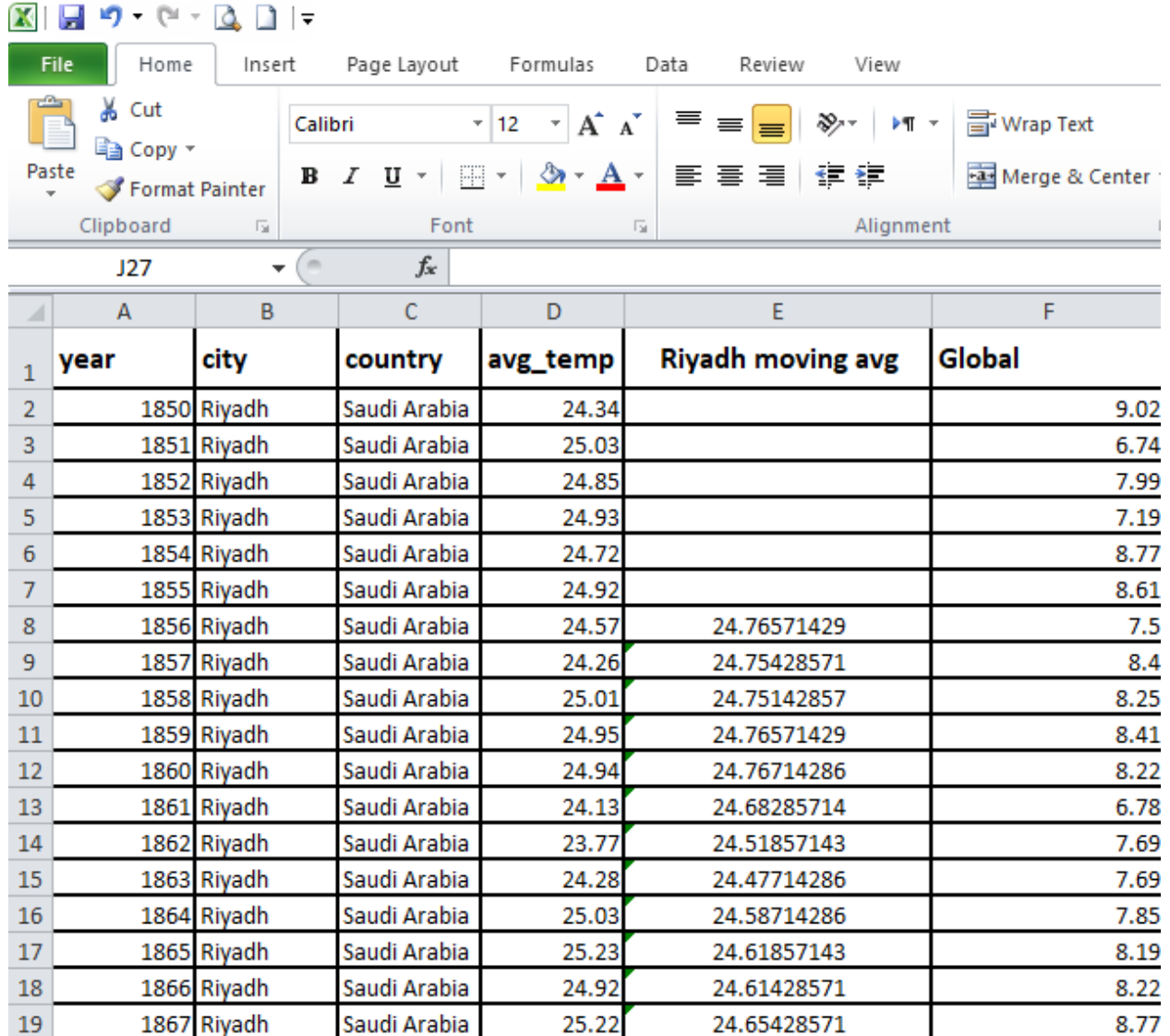


## Project 1: Explore Weather Trends

### 1. Moving Average

I choose a 7-year moving average. I took the first 7 years of average temperatures and averaged them.

**Formula** =AVERAGE (8.72 + 7.98 + 5.78 + 8.39 + 8.47) then I dragged down.

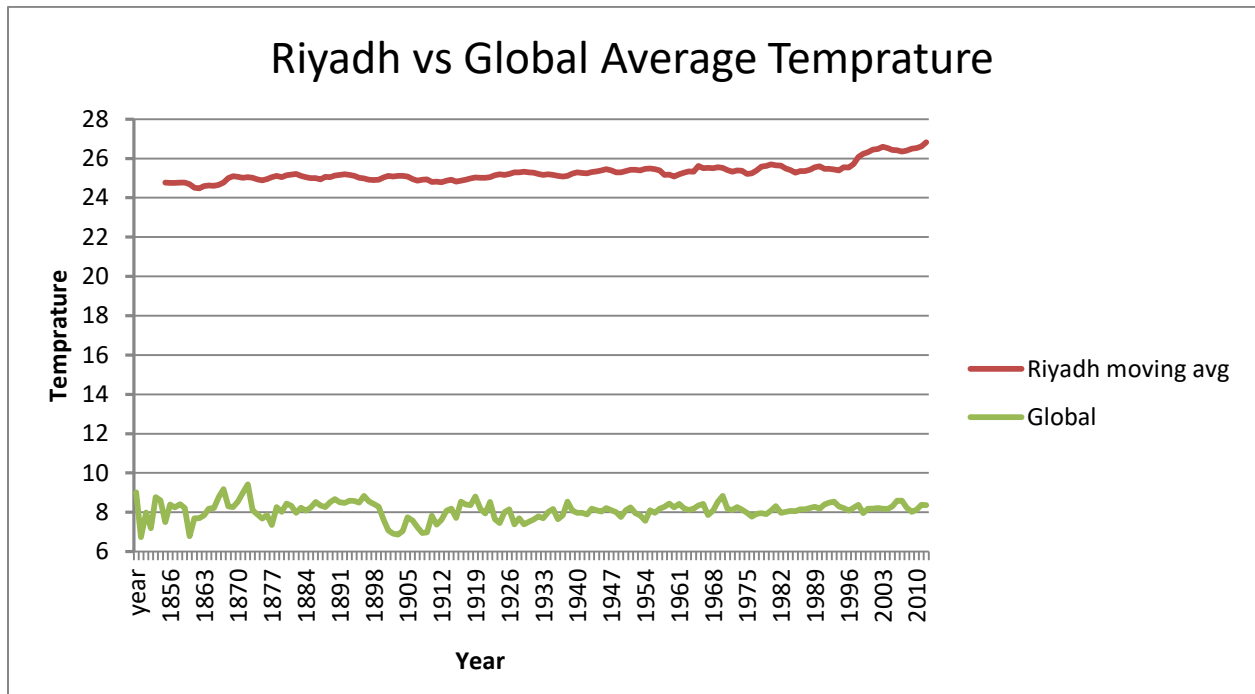


The screenshot shows the Microsoft Excel interface. The ribbon includes File, Home, Insert, Page Layout, Formulas, Data, Review, and View. The Home ribbon is active, showing options for Clipboard (Paste, Format Painter), Font (Calibri, 12, Bold, Italic, Underline, Color), and Alignment (Wrap Text, Merge & Center). The active cell is J27. The formula bar shows the formula =AVERAGE(D2:D8). The data table below shows the calculation of a 7-year moving average for Riyadh's average temperature.

	A	B	C	D	E	F
1	year	city	country	avg_temp	Riyadh moving avg	Global
2	1850	Riyadh	Saudi Arabia	24.34		9.02
3	1851	Riyadh	Saudi Arabia	25.03		6.74
4	1852	Riyadh	Saudi Arabia	24.85		7.99
5	1853	Riyadh	Saudi Arabia	24.93		7.19
6	1854	Riyadh	Saudi Arabia	24.72		8.77
7	1855	Riyadh	Saudi Arabia	24.92		8.61
8	1856	Riyadh	Saudi Arabia	24.57	24.76571429	7.5
9	1857	Riyadh	Saudi Arabia	24.26	24.75428571	8.4
10	1858	Riyadh	Saudi Arabia	25.01	24.75142857	8.25
11	1859	Riyadh	Saudi Arabia	24.95	24.76571429	8.41
12	1860	Riyadh	Saudi Arabia	24.94	24.76714286	8.22
13	1861	Riyadh	Saudi Arabia	24.13	24.68285714	6.78
14	1862	Riyadh	Saudi Arabia	23.77	24.51857143	7.69
15	1863	Riyadh	Saudi Arabia	24.28	24.47714286	7.69
16	1864	Riyadh	Saudi Arabia	25.03	24.58714286	7.85
17	1865	Riyadh	Saudi Arabia	25.23	24.61857143	8.19
18	1866	Riyadh	Saudi Arabia	24.92	24.61428571	8.22
19	1867	Riyadh	Saudi Arabia	25.22	24.65428571	8.77

## 2. Line chart

- I used Excel to create my line chart
- I selected year, Riyadh moving average, and global moving average.



## My Observations

1. Riyadh is hotter than the global average. Riyadh has been consistently hotter than the global average.
2. The average temperature is consistently increasing.
3. Overall there is an upward trend for average temperature for both Riyadh and global.
4. The world is getting hotter and will continue to get hotter.